#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017561 Address: 333 Burma Road **Date Inspected:** 17-Oct-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Yu Dong Ping No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Baskar Govindarajan, was present during the times noted above for observations relative to the work being performed.

**Tower Jetty** 

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Buttering of Elevator angles, located on Skin D of South tower, Lift3. Welder is identified as 040582, 057220. ZPMC Quality Control Inspector (QC) is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – 345-SMAW -1G (1F) -Repair.

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 06991

Magnetic Particle Testing (MT)

This QA inspector performed (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated TL 6028 MT report for this date. The member is identified as South tower, Lift 3, Grating Brackets. The weld designations reviewed are as follows:

(Continued Page 2 of 5)

GGSA-58PLAN-85 mtr.-1-S – Jt. nos- 1,2,3,4,5,6 GGSA-58PLAN-85 mtr.-2-S - Jt. nos- 1,2,3,4,5,6 GGSA-58PLAN-85 mtr.-3-S – Jt. nos- 1,2,3,4,5,6 GGSA-58PLAN-85 mtr.-4-S – Jt. nos- 1,2,3,4,5,6

Bay #11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

ORTHOTROPIC BOX GIRDER (OBG)

Weld joint # 066, 067- located on Bike path component BK 005A4-003. Welder is identified as 049220, 042218. ZPMC Quality Control Inspector (QC) is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2132.

Weld joint # 002, 007- located on Bike path component BK 004A6-021. Welder is identified as 054460. ZPMC Quality Control Inspector (QC) is identified as Wang Chuang Xin. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2332 - TC-P4-F.

Weld joint # 043- located on Bike path component BK 004A1-022. Welder is identified as 040723. ZPMC Quality Control Inspector (QC) is identified as Wang Chuang Xin.. The welding variables recorded by QC appeared to comply with the WPS – B –T – 2232 –TC-U4C-F.

Weld joint # 013, 14- located on Bike path component BK 004A6-023. Welder is identified as 040759. ZPMC Quality Control Inspector (QC) is identified as Wang Chuang Xin.. The welding variables recorded by QC appeared to comply with the WPS -B -T - 2132.

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 067, 114- located on Bike path component BK 004A6-021. Welder is identified as 040655. ZPMC Quality Control Inspector (QC) is identified as Wang Chuang Xin.. The welding variables recorded by QC appeared to comply with the WPS – B –P – 2213 –TC-U4C.

Repair of Skin B Surface repair, located on 90 mtr. elevation of East shaft, Lift 3. Welder is identified as 040690. ZPMC Quality Control Inspector (QC) is identified as Zhao Mao Mao. The welding variables recorded by QC appeared to comply with the WPS – 345-SMAW -3G (3F) -Repair.

(Continued Page 3 of 5)

Bay #10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

ORTHOTROPIC BOX GIRDER (OBG)

Weld joint # 030, 031- located on Bike Path BK004A3- 028. Welder is identified as 053869. ZPMC Quality Control Inspector (QC) is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132.

Blast shop # 1

This QA inspector, Baskar Govindarajan, performed Post blast inspection of external surfaces of West tower, Lift 3. All the areas marked which requires grinding, weld repair, Grinding & MT wherever applicable in all the Skins of Tower from 83 to 114 mtr. Elevation. This inspection was carried out along with QA Inspector Mr. Gade (B 307), Mr. Vibin (B 294, Mr. Vikram (B 300), Mr. Pillai (B 286) and Mr. Art Peterson (B 273). All the marked points shown to ZPMC inspector Mr. Zhao Chen Sun and ABF Inspector Mr. Kim. All the weld repair areas (5 nos) marked in weld map in detail and the same was signed by ZPMC and ABF Inspector. Incident report rose for the same.

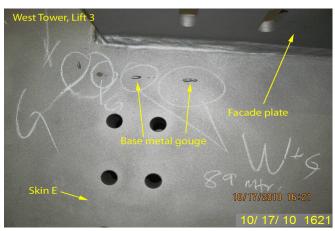
For further information see below pictures:-

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

(Continued Page 4 of 5)











## **Summary of Conversations:**

No relevent Conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng (15921845703), who represents the Office of Structural Materials for your project.

(Continued Page 5 of 5)

**Inspected By:** Baskar, Govindarajan Quality Assurance Inspector **Reviewed By:** Clifford, William QA Reviewer